

Amendments to the Claims:

1. (original) A method for coating a carbon velvet material attached to a cathode to make a field emission cold cathode, comprising:

forming a solution of a low work function cesiated salt and de-ionized water;
spraying the carbon velvet material with the cesiated salt solution to form a coated carbon velvet material;

baking the coated carbon velvet material at a temperature of at least 100 °C for approximately an hour in a vacuum oven evacuated to less than 1 torr.; and
venting the vacuum oven to an atmospheric pressure using dry nitrogen.

2. (original) A coating method as recited in Claim 1, wherein the spraying step includes pressurizing a spraying means with dry nitrogen.

3. (original) A coating method as recited in Claim 1, wherein the cesiated salt is selected from a group consisting of cesium tellurate and cesium bromide.

4. (currently amended) A coating method as recited in Claim 1, wherein the steps of forming, spraying, baking, and venting are repeated until a film of cesiated salt having a desired thickness of ~~1 angstrom to 10 microns~~ is formed on ~~each of a plurality of shafts of~~ the carbon velvet material.

5. (currently amended) A method of making a field emission cold cathode, comprising:

forming a solution of a cesiated salt;
coating only tips of a carbon velvet material with the cesiated salt solution; and
bonding the carbon velvet material to a cathode.

6-7 (canceled)

8. (original) A method of making a field emission cold cathode, comprising:
depositing a vaporized cesiated salt solution onto fibers of a carbon velvet material;
forming cesiated salt crystals on the fibers; and
bonding the carbon velvet material to a cathode.
9. (canceled)
10. (currently amended) A method as recited in Claim 8 ~~9~~ wherein the fibers have tips, and the cesiated salt crystals are formed only on the tips.
- 11-12 (canceled)
13. (currently amended) A method of making a field emission cold cathode comprising:
attaching a carbon velvet material having fibers to a cathode;
dipping the fibers in a molten cesiated salt solution; and
cooling the solution ~~while the fibers are immersed in the solution.~~
14. (original) A method as recited in Claim 13 wherein the fibers have tips, and only the tips are dipped in the molten cesiated salt solution.
15. (currently amended) A method of making a field emission cold cathode comprising:
attaching a carbon velvet material having fibers to a cathode;
dipping the fibers in a molten cesiated salt solution; and
removing the fibers from the solution; ~~and~~
~~cooling the fibers after the fibers have been removed from the solution.~~
16. (original) A method as recited in Claim 15 wherein the fibers have tips, and only the tips are dipped in the molten cesiated salt solution.

17. (currently amended) A method as recited in Claim 15 wherein the steps of dipping, and removing ~~and cooling~~ are repeated until a film of cesiated salt having a desired thickness of ~~1 angstrom to 10 microns~~ is formed on a plurality of the fibers.

18. (original) A method as recited in Claim 17 wherein the fibers have tips, and only the tips are dipped in the molten cesiated salt solution.